

AMENDMENTS TO THE DRAWINGS

Submitted herewith are Replacement Figures 1-6, 9 and 17, labeled “PRIOR ART”.

Attachment: Replacement Sheets

REMARKS

Applicant thanks the Examiner for acknowledging receipt and consideration of the references cited with the Information Disclosure Statement filed on July 3, 2006.

Applicant also thanks the Examiner for acknowledging the claim for priority under 35 U.S.C. § 119 and receipt of the certified copy of the priority document.

The drawings have been objected to in that Figures 1-6, 9 and 17 were not labeled "Prior Art". By this amendment Figures 1-6, 9 and 17 are labeled "Prior Art". It is noted that the remaining figures of the application are not Prior Art.

Claim 1-6 and 21-34 have been examined. Applicant thanks the Examiner for indicating that claims 1, 3-6, 21-24 and 26-34 are allowed.

Claim Rejections 35 U.S.C. § 102

Claims 2 and 25 have been rejected. Specifically, claims 2 and 25 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Kobayashi (US Patent 6,469,581). This rejection is respectfully traversed.

The Kobayashi references relates to a microwave power amplifier which is configured as a Doherty amplifier. The Doherty amplifier of the Kobayashi reference includes conventional matching circuits such as the LC circuit illustrated in Figure 3A of the reference. The Examiner has attempted to relate the conventional matching circuits to the claimed structure which compresses a large instantaneous value of amplitude in an amplifier having a gain expansion characteristic. In fact, Kobayashi neither discloses nor suggests Applicant's claimed invention.

More specifically, according to claims 2 and 25 there is provided an amplifier which has a gain expansion characteristic such that it presents an increase in gain in response to an averaged increase in input or output power with the added unique and unobvious feature of a

mechanism that compresses the gain when a large instantaneous value of amplitude is supplied not withstanding the gain increase in response to averaged increases and input or output power.

The Examiner is respectfully referred to, for example, paragraphs [76] - [77], [110] - [111] and Figures 20-36 of the subject application for an example of one implementation of the claimed features of claims 2 and 25.

As explained therein, according to the present invention there is provided a mechanism that causes compression of the instantaneous value of the amplitude by automatically changing the impedance of a portion of the amplifier circuit in response to a large instantaneous value of amplitude. The change in impedance causes part of the instant signal to leak to the bias circuit. This causes a compressed instantaneous value of amplitude. As a result there may also be inverted phases of the basic wave and the deterrence of modulation distortion (IM3) at the output.

Such a circuit arrangement is neither disclosed nor suggested by Kobayashi. More specifically, the Examiner's reference to Kobayashi columns 5 and 6 does not suggest the circuitry which operates the compress large instantaneous values of amplitude in an amplifier which increases gain in response to averaged increase in power. For example, at column 6 Kobayashi mentions that the tuning accomplished using matching circuits can be used to provide gain expansion and phase compression help to linearize predistortion. However, there is no circuit disclosed or suggested in the reference for compressing gain in the presence of large instantaneous values of an amplitude while the amplifier increases gain in response to averaged increase in input power or output power.

Conclusion

For the foregoing reasons, it is respectfully submitted that claims 2 and 25 are also patentable. It is therefore requested that all claims presently in the application, namely, claims 1-6 and 21-34 should be allowed and the subject application be passed to issue at the earliest possible time.

If for any reason the Examiner finds the application other than in condition for allowance he is respectfully requested to call the undersigned the attorney at the Washington DC telephone no. below to discuss the steps necessary for placing the application into condition for allowance.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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